

WCD egosphere-2026-1019 – Diurnal cycles of cloud and rainfall over North-East Queensland during the coral bleaching season (Chapman et al.)

General comments related to the manuscript

The authors have done an excellent job in improving the readability, data presentation, and overall quality of this manuscript, and have addressed all of my recommendations, either through inclusion within text or explanation where edits/approaches are not feasible (or demand too much e.g. beyond scope/data availability).

I am happy to have this article accepted for publication after some (very) minor, bordering on technical, revisions, which I have outlined below, with Line/Figure numbers provided for ease.

Specific comments

My primary lingering issue would be the discussion/conclusion should incorporate some details about potential limitations with regards to the analysis and what the scope is for future work based on this work (particularly with how the abstract is concluded). These have been addressed, I believe, in parts of the revised manuscript already, but it would be good to collate them together towards the end as it will 1) be a somewhat logical/useful way to round off the article and also 2) provide ease for readers to find suggestions for recommendations for next steps, where elements remain unexplored,.

I have some slight issues with the colours used for defining the wind regime directions and the 3 AWSs. For example, in the bar charts in Figure 3, I find the blues representing SE and SW hard to distinguish from one another – similarly in the line plots in Figure 4 (though, with the in-text references to the Figure, it is easier to figure out which line is which). In Figure 6, I have the opposite issue with the yellow being a bit hard to see. I understand this may be a bit pedantic for the authors!

Throughout the manuscript, I would double check how much of the content is necessary per paragraph (e.g. if paragraphs can be split or shortened). For example, a new paragraph could be made in Line 36 to separate what we know about diurnal cycles, but then issues within (state-of-the-art) climate models. Additional, Line 86 to 98 at the end of the introduction could be combined into one paragraph outlining the research questions/aims of the work, and how the study will be performed (e.g. the data that is being used). Similarly, Lines 377-387 could be made more concise (which reads like more of a defence about the schematic, which I think has decent clarity already) - maybe some of this text could be added to the caption, or the authors can check whether all of it is necessary? Essentially, these requests are a 'do another just-in-case proof-read' for succinctness and flow.

Line 244: 'In particular, north-westerly flow **is** associated with the highest θ_e , and weakest stability, north-easterly flow **shows** intermediate moistening, and south-easterly flow **is** characterized by persistently low θ_e and enhanced stability'. This goes back to the proof-read comment above, which will largely be addressed in the final editorial stages, anyway.

Line 262: Remove the comments about the specific channel used for Himawari as this is mentioned in the caption/methodology e.g. 'The mean diurnal cycles of satellite-derived brightness temperature (BT) and radar-derived rainfall'

Line 264: 'with colder BTs indicating deeper convection, and warmer BTs suggesting shallow cloud or clearer-sky conditions'

Line 396: 'by **the** diurnal cycle'